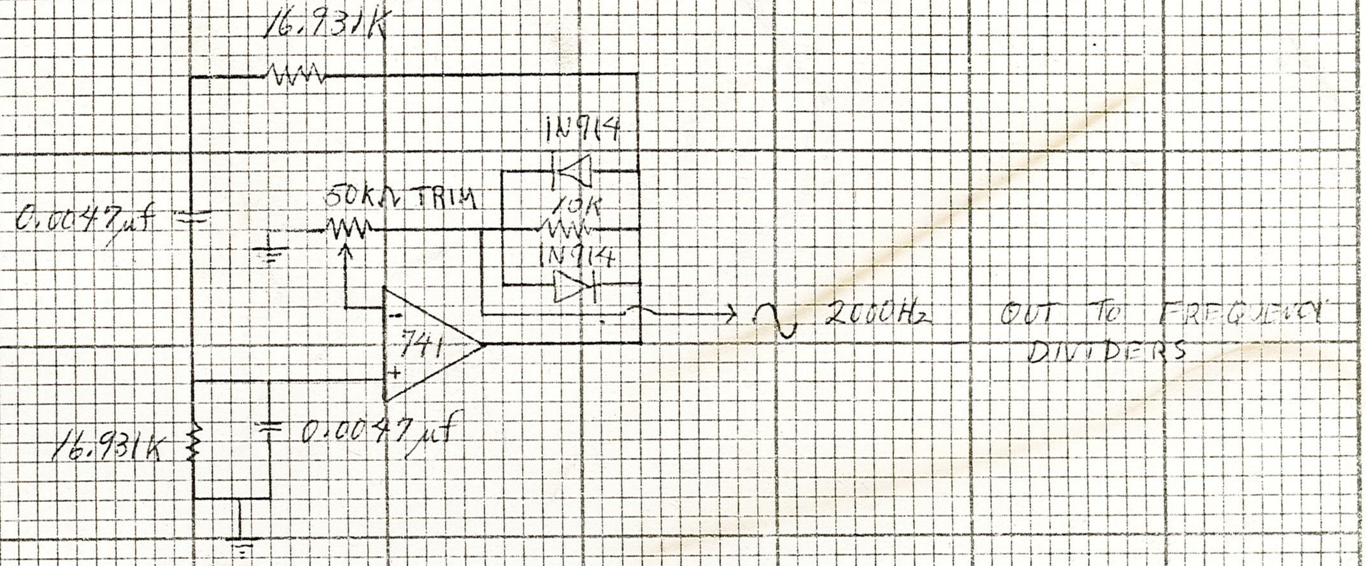
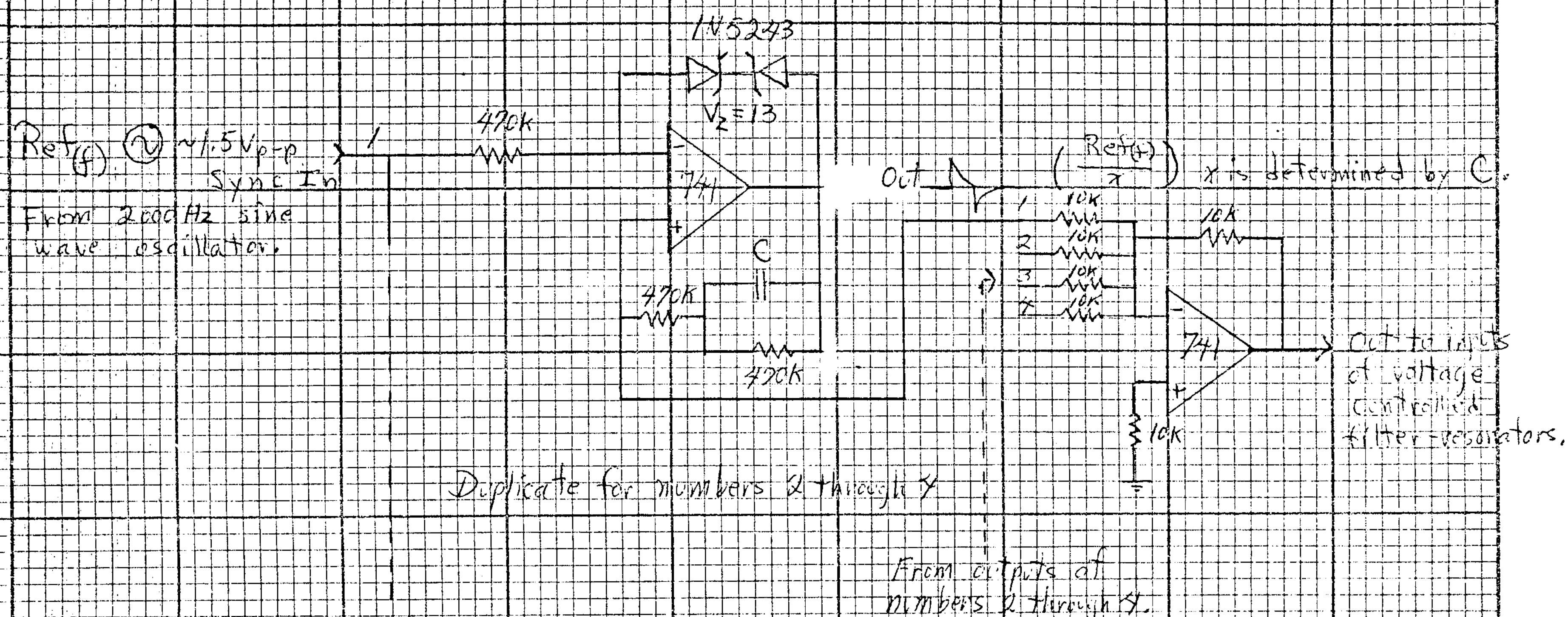


2KHz SINE OSCILLATOR (WIEN BRIDGE)
MEDTRONIC PROJECT
DESIGNER: D. ROSENBOOM
8 X 74 TORONTO

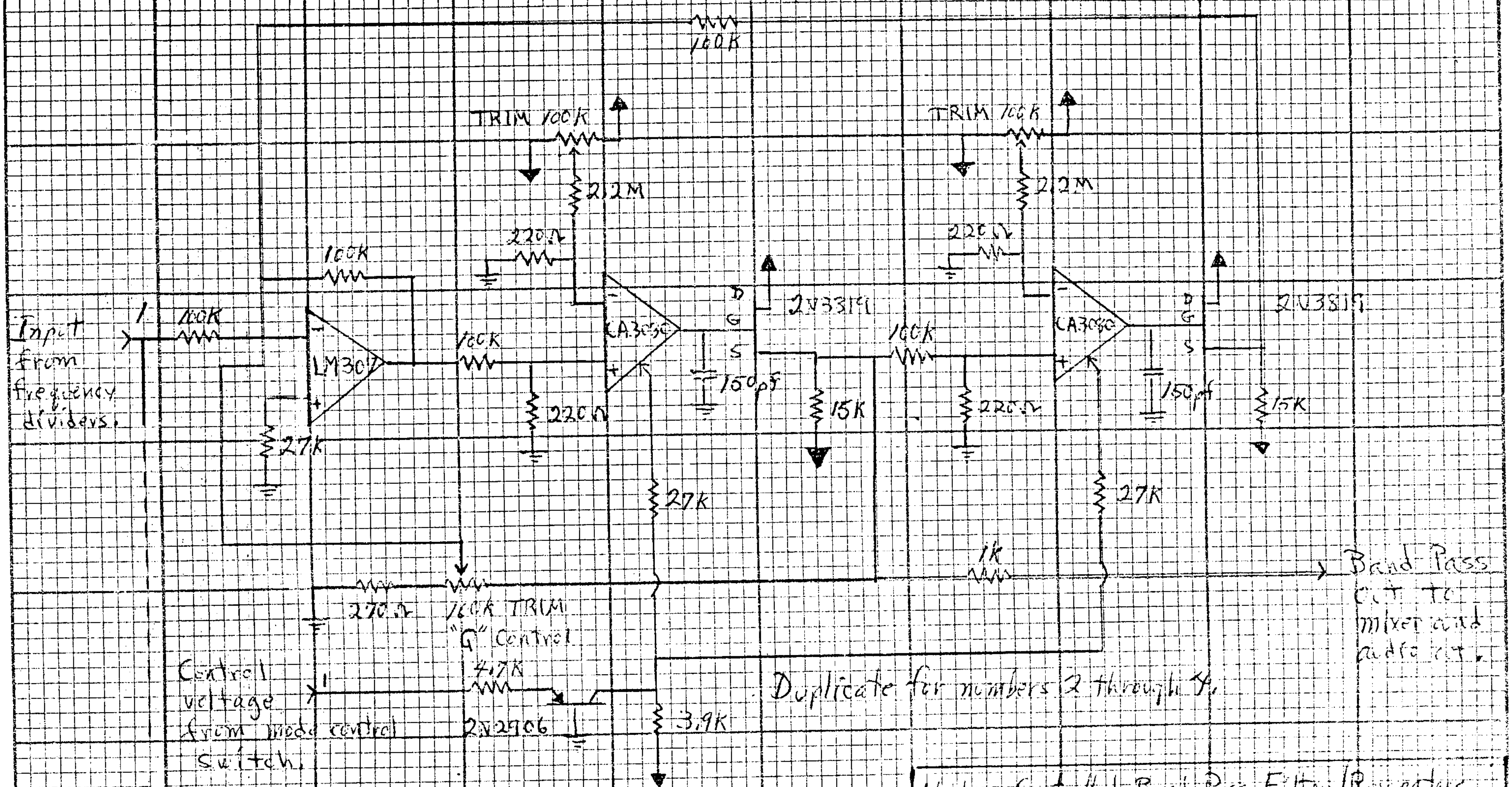


FREQUENCY DIVIDER/WAVE SHAPERS

MEDTRONIC PROJECT

DESIGNER: O. ROSENBOOM

12 I 75 TORONTO

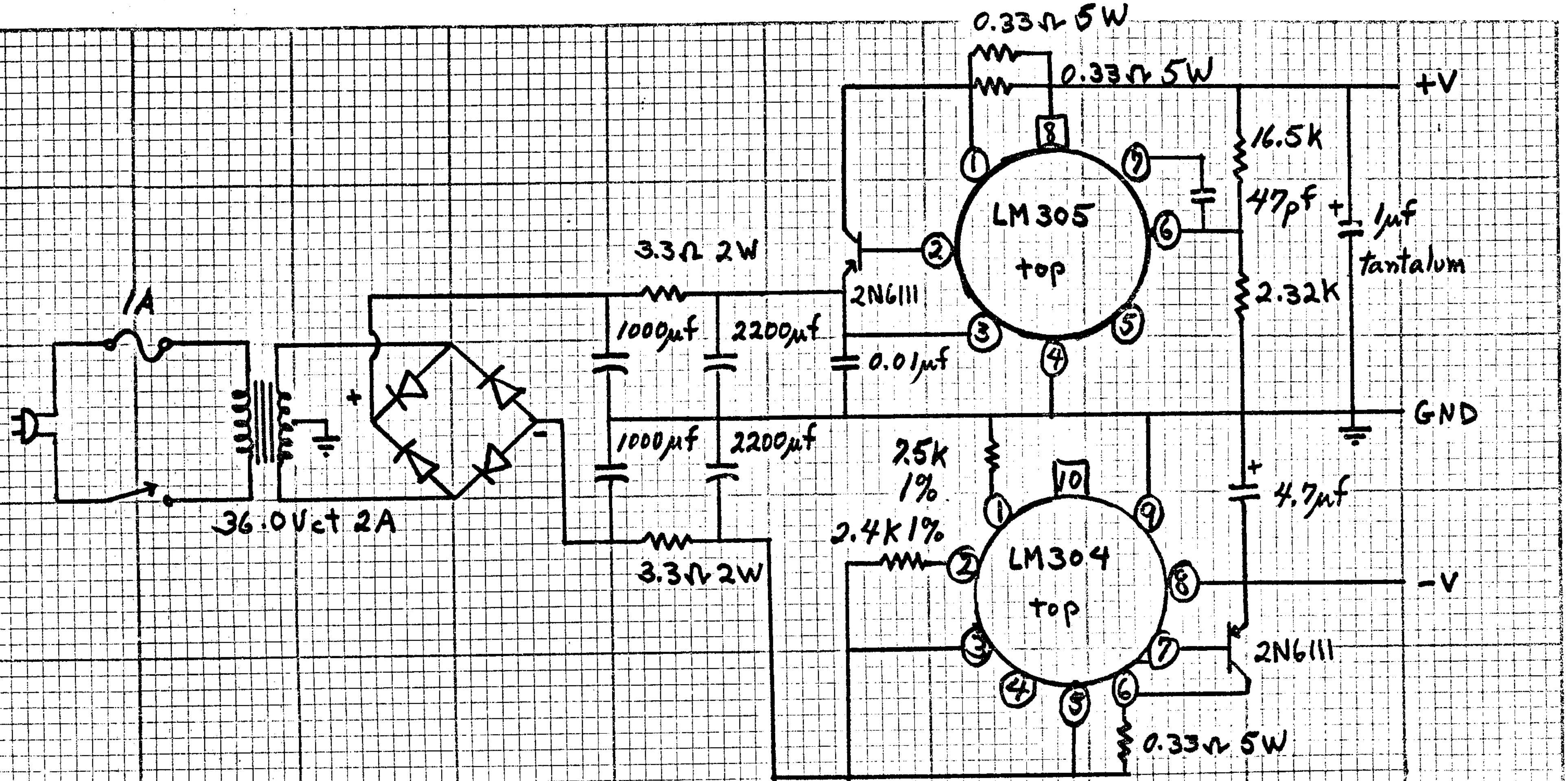


Voltage Controlled Band Pass Filter/Resonators

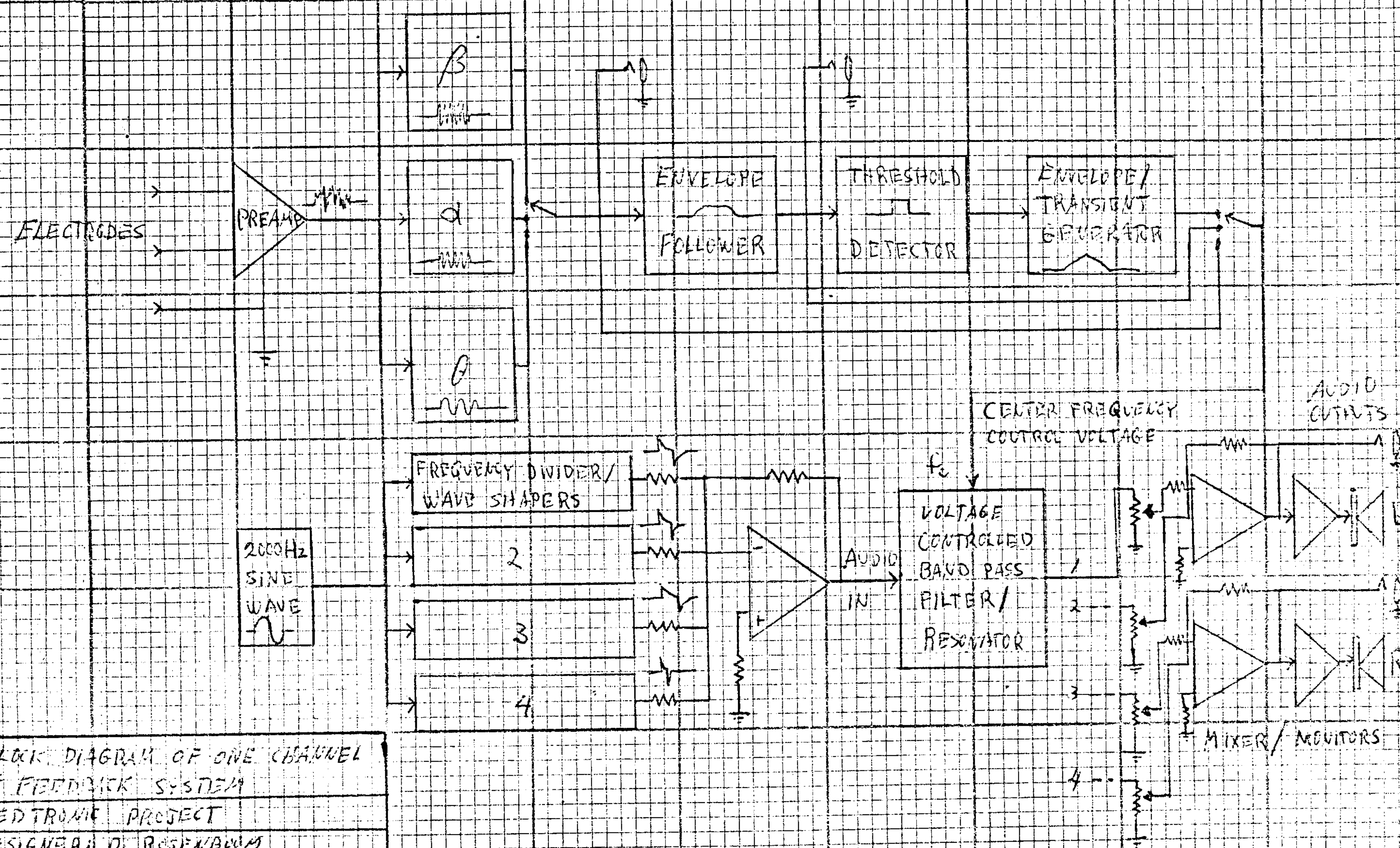
MEDTRONIC PROJECT

DESIGNER: D. Rosenboom

12 XI 74 Toronto



POWER SUPPLY, ±15VDC
MEDTRONIC PROJECT
DESIGNER: D. ROSENBOOM
15 XII 74
Toronto

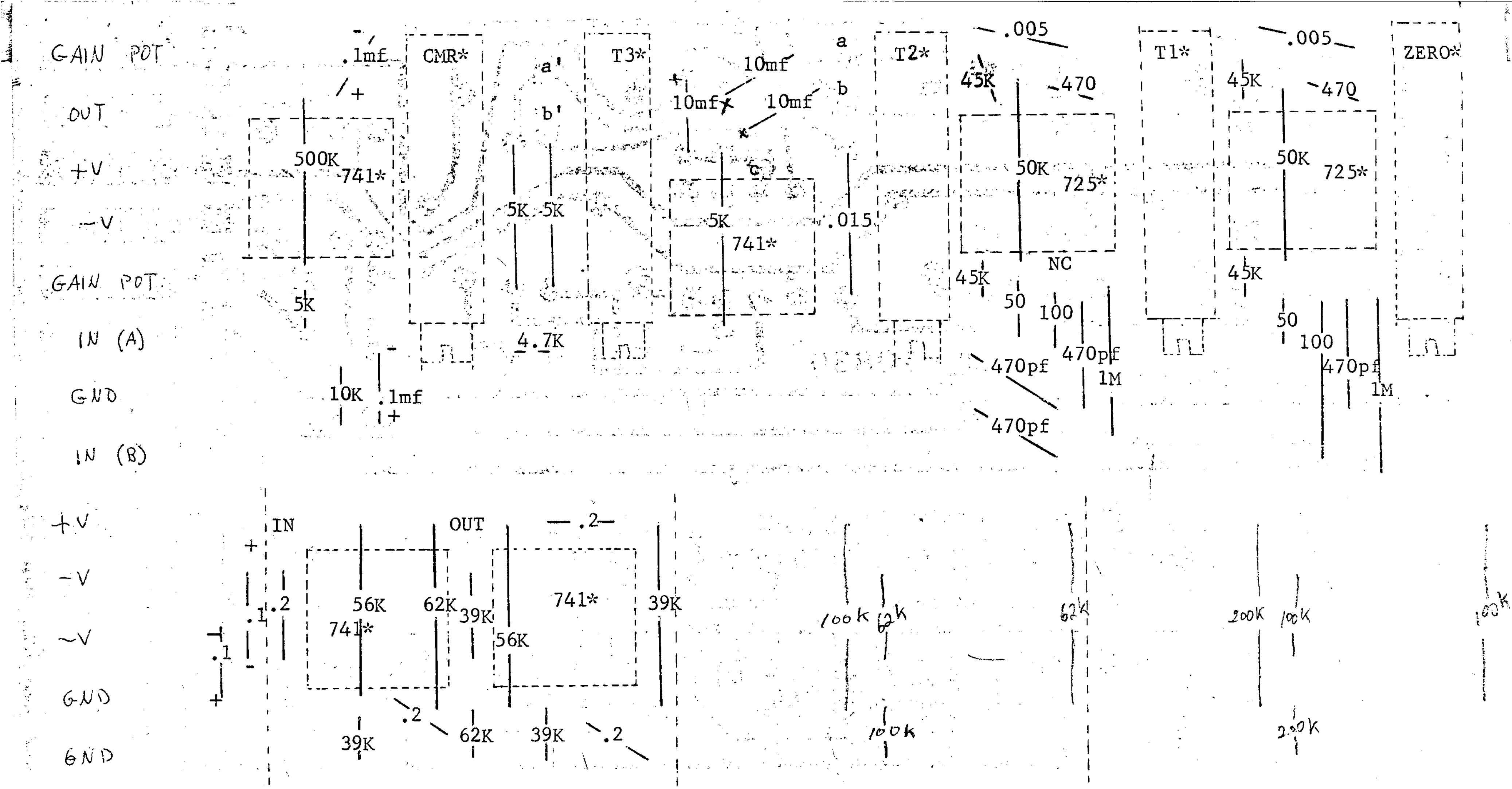


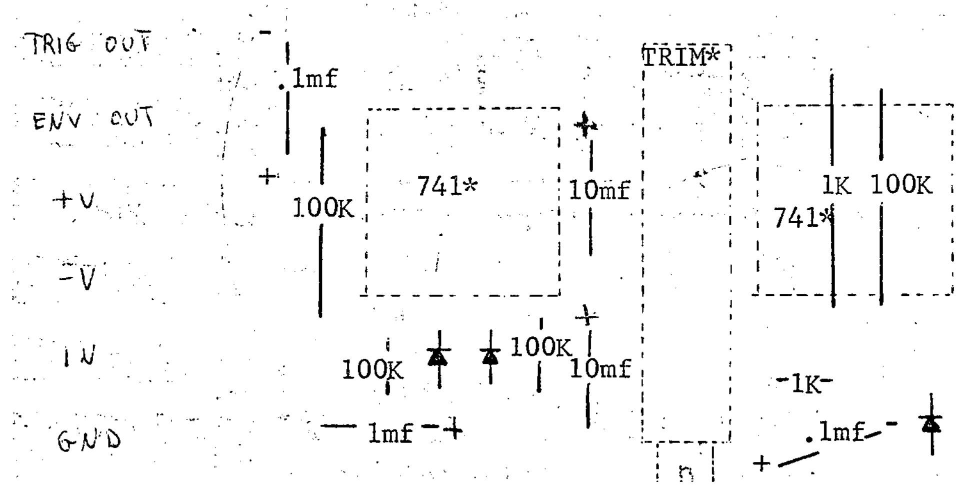
BLOCK DIAGRAM OF ONE CHANNEL OF FEEDBACK SYSTEM

MEDTRONIC PROJECT

DESIGNER D. ROSENBOOM

10 IX 74 TORONTO

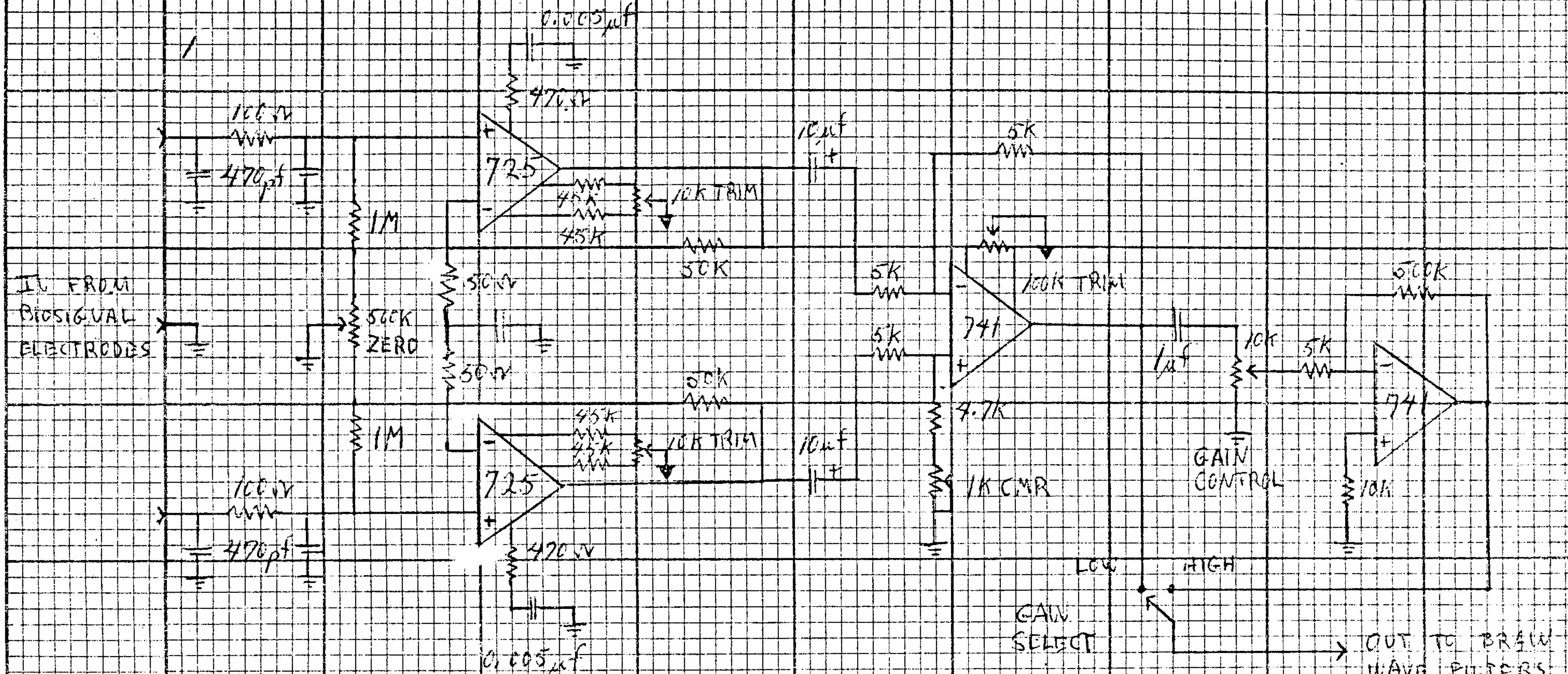




PRINTED CIRCUIT LAYOUTS
FOR BIOSIGNAL PREAMP,
BRAIN WAVE FILTERS,
AND ENVELOPE FOLLOWER/
THRESHOLD DETECTOR
BOARDS.

DESIGNER: D. ROSENBOOM & A.J. GABURA

MEDTRONIC PROJECT



DUPLICATE FOR NUMBERS 2 THROUGH 4. ALL RESISTERS SHOULD BE LOW NOISE METAL FILM TYPES.

BIOELECTRONIC SIGNAL PREAMPLIFIER

MEDTRONIC PROJECT

DESIGNER: D. ROSENBOOM

5 II 74 TORONTO

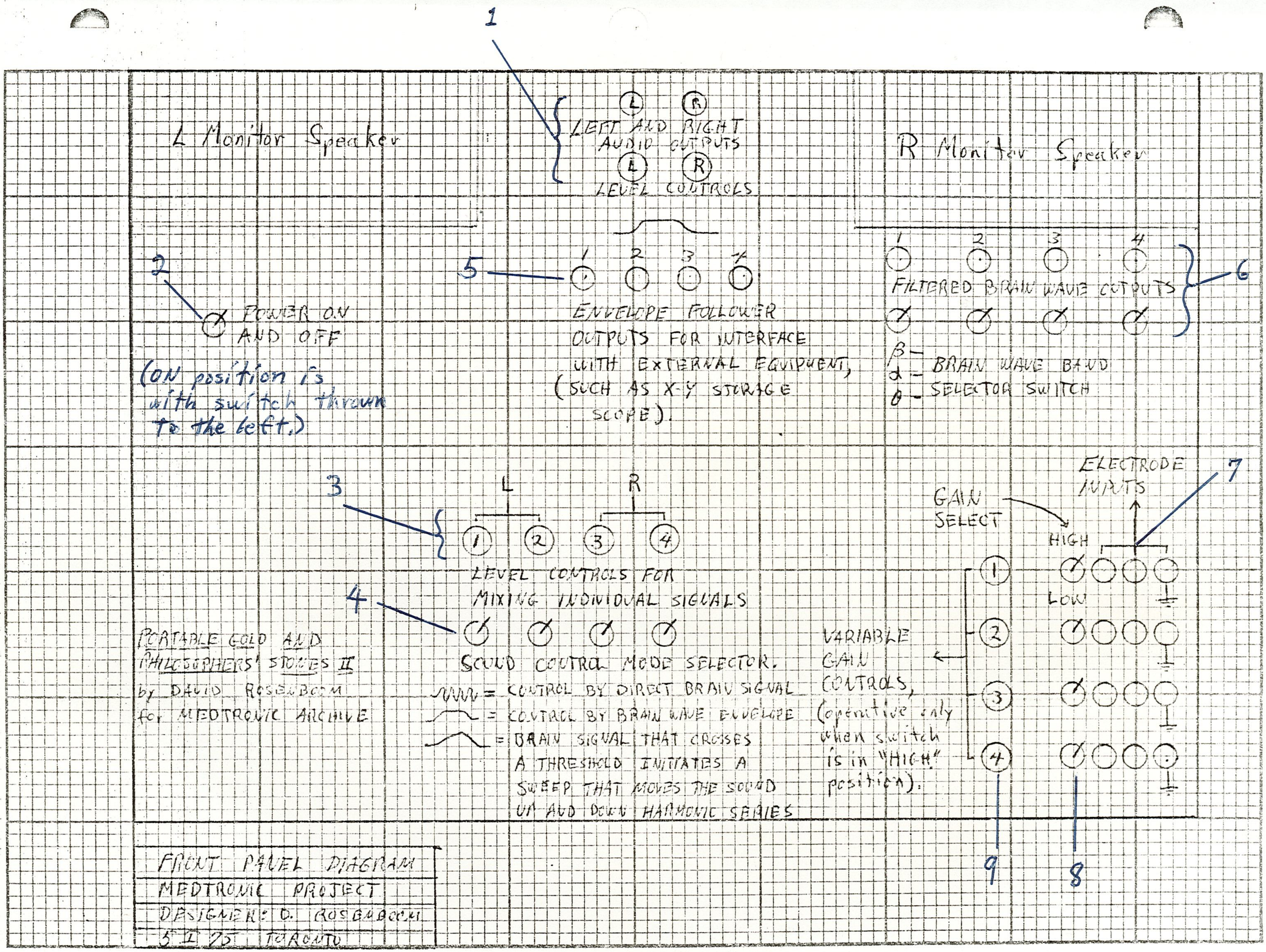
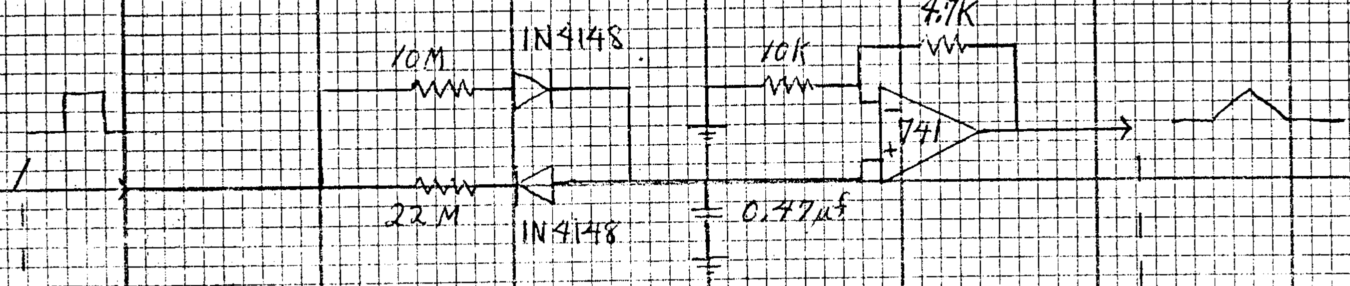

1
LEFT AND RIGHT AUDIO OUTPUTS
L R
LEVEL CONTROLS
L Monitor Speaker
R Monitor Speaker
2
POWER ON AND OFF
(ON position is with switch thrown to the left.)
5
1 2 3 4
ENVELOPE FOLLOWER OUTPUTS FOR INTERFACE WITH EXTERNAL EQUIPMENT, (SUCH AS X-Y STORAGE SCOPE).
6
1 2 3 4
FILTERED BRAIN WAVE OUTPUTS
β – α – θ – BRAIN WAVE BAND SELECTOR SWITCH
3
L R
1 2 3 4
LEVEL CONTROLS FOR MIXING INDIVIDUAL SIGNALS
4
SOUND CONTROL MODE SELECTOR.
= CONTROL BY DIRECT BRAIN SIGNAL
= CONTROL BY BRAIN WAVE ENVELOPE
= BRAIN SIGNAL THAT CROSSES A THRESHOLD INITIATES A SWEEP THAT MOVES THE SOUND UP AND DOWN HARMONIC SERIES
PORTABLE GOLD AND PHILOSOPHERS' STONES II
by DAVID ROSENBOOM
for MEDTRONIC ARCHIVE
ELECTRODE INPUTS
7
GAIN SELECT
HIGH
LOW
VARIABLE GAIN CONTROLS, (operative only when switch is in "HIGH" position).
9
8
FRONT PANEL DIAGRAM
MEDTRONIC PROJECT
DESIGNER: D. ROSENBOOM
5 II 75 TORONTO

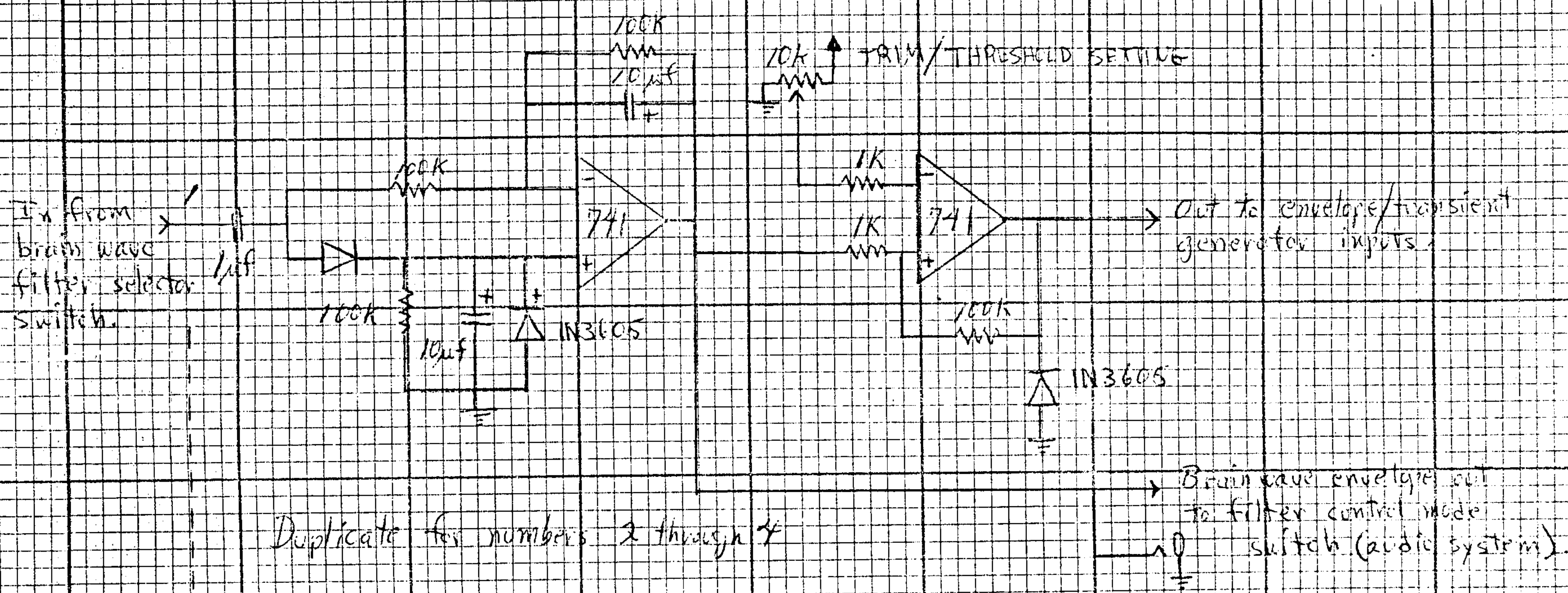
Diagram "A"



Duplicate for numbers 2 through 4

Out to mode control switch.
Input from threshold detector.

Envelope (transient) generator
Medtronic Project
Designer: D. Rosenboom
10 XI 74 Toronto

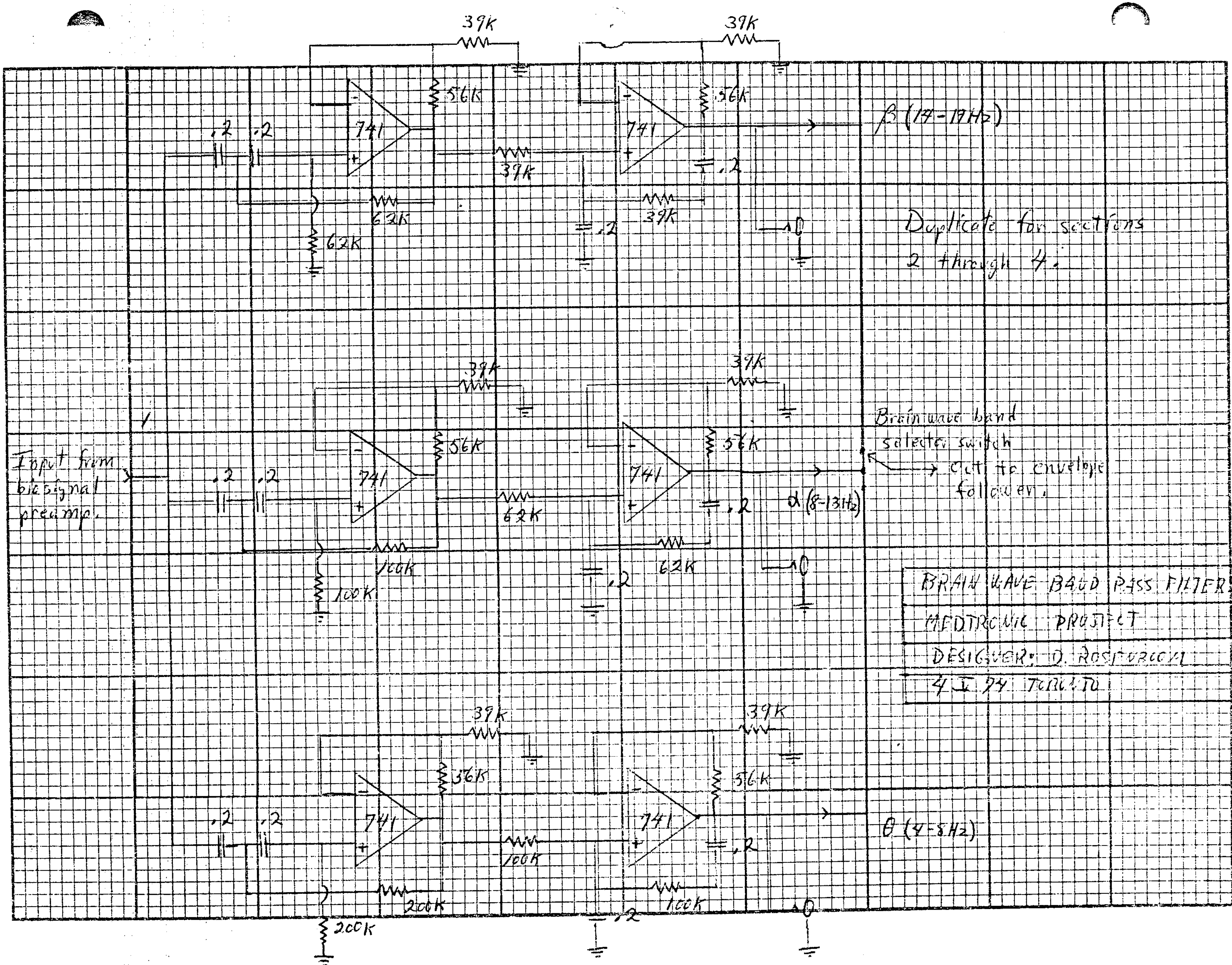


Brain Wave Envelope Follower / Threshold Detector

MEDTRONIC PROJECT

DESIGNER: D. ROSENBOOM

4 V 74 Toronto



BRAIN WAVE BAND PASS FILTERS
MEDTRONIC PROJECT
DESIGNER: D. ROSTFORCOM
4 I 74 TORONTO